



A CASE STUDY.....

# Constraints perceived by the small scale pig farmers in Sivasagar district of Assam: An analysis

RAFIQUL ISLAM, PHULESWAR NATH AND ARUNIMA BHARALI

**ABSTRACT.....** A study was conducted covering eight development blocks of Sivasagar district to know the major constraints perceived by small scale pig farmers. Fifteen numbers of farmers from each block, thus, a total of one hundred twenty numbers of farmers were selected randomly on the basis of their experience in pig farming. Among the breeding factors, the highest mean score (68.98) was found in case of non-availability of improved breed and was ranked first. It was revealed that lack of knowledge of feeding balanced ration was the most important constraints with a mean score of 74.21 and was ranked first among feeding factors. The higher mortality of pig due to unidentified contagious diseases was the most serious constraints faced by the small scale pig farmers with a mean score of 67.33. Another important constraints faced by the farmers was lack of organized marketing facility with a mean score of 73.63. The social unacceptance of pig farmers (57.29) was also one of the major constraints faced by the pig farmers.

Author for Corresponding -

**RAFIQUL ISLAM**  
Krishi Vigyan Kendra, Dhubri,  
Bilasipara, DHUBRI (ASSAM)  
INDIA  
Email: [drarafiqul.islam@aau.ac.in](mailto:drarafiqul.islam@aau.ac.in)

See end of the article for

Coopted authors'

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## INTRODUCTION.....

Assam has a pig population of 1.6 million and contributes about 16 per cent of country's total pig population and ranks first (Govt. of India, 2014). Further, Sivasagar district shares 5.37 per cent of Assam's total pig population and ranks 7<sup>th</sup>. Pig has been considered as one of the most important livestock in Upper Assam area particularly in the district of Sivasagar. Population of the district is mostly dominated by *Ahom* community, who traditionally rear pigs at their backyard. Almost each and every rural household of this community do small scale pig farming. They relish pork and pork products in almost

all of their festive occasions. So demand of pork and pork products has always been high in this district. Due to higher demand of pork and its products, many more unemployed educated youths have been attracted towards commercial pig farming in a bigger way for their livelihood security. However, the piggery sector has not come up well in this district despite many more advantages. This is due to some major constraints faced by the pig farmers of this region. Keeping this point in mind, a study has been conducted to know the major constraints of small scale pig farming in Sivasagar district.

## RESEARCH METHODS.....

The study was conducted in eight development blocks *viz.*, Nazira, Lakwa, Sapekhata, Amguri, Mahmora, Demow, Sonari, and Westabhayapuri of Sivasagar district during June/2014 to May/2015. Fifteen farmers from each block and thus, a total of one hundred twenty farmers were randomly selected for the purpose of the study. The farmers were selected purposively on the basis of at least 3 years experience in pig farming and had a minimum of 4 numbers of pigs at the farm. The respondents were interviewed personally with direct contact. The data were collected in a pre-structured interview schedule. Various constraints under five different heads *viz.* breeding, feeding, health care, marketing and miscellaneous were enlisted in the interview schedule. After a pilot study, altogether seven factors were enlisted and finalized under each heads of the interview schedule. The respondents were asked to rank them from 1 to 7 under each head against different factors according to the severity of the constraints faced by them. Rank 1 denoted the most severe while rank 7 denoted the least severe constraint. The data so collected were tabulated and analyzed statistically by using Garrett's Ranking Technique. The assigned ranks given by the respondents were counted into per cent position value by the following formula:

$$\text{Per cent position} = 100(\text{Rij} - 0.50) / \text{Nj}$$

where,

Rij=Rank given by the  $i^{\text{th}}$  factor by the  $j^{\text{th}}$  individual

Nj=Number of factor ranked by the  $j^{\text{th}}$  individual.

The per cent position was then converted into scores by referring the table given by Garrett and Woodworth (1969). Then for each factor the scores of the individual respondents were added together and divided by the total number of respondents for whom scores were added. The mean scores were calculated by dividing the total score by the number of respondents. Overall ranking was obtained by assigning ranks in the descending order of the mean score.

## RESEARCH FINDINGS AND ANALYSIS.....

The different types of constraints faced by the small scale pig farmers in Sivasagar district is presented in the following tables under the heads of breeding, feeding, health care, marketing and miscellaneous constraints.

### Breeding constraints:

The result of the breeding constraints enlisted in the Table 1 indicated that the highest mean score (68.98) was found in case of non-availability of improved breed and was ranked first followed by lower productivity of indigenous animals (64.06), non-availability of Artificial

**Table 1: Breeding constraints of pig farming**

Sr. No.	Breeding factors	Garrett's total score	Garrett's mean score	Garrett's rank
1.	Lower productivity of indigenous animals	7687	64.06	II
2.	Non-availability of improved breed	8277	68.98	I
3.	Non-availability of A.I. service	6578	54.82	III
4.	Non-availability of improved pedigree boar for natural service	6265	52.21	IV
5.	Higher cost of natural service by improved boar	4692	31.10	VI
6.	Inability to rear improved boar for breeding	5181	43.18	V
7.	Lack of knowledge in detecting heat	3440	28.67	VII

**Table 2: Feeding constraints in pig farming**

Sr. No.	Feeding factors	Garrett's total score	Garrett's mean score	Garrett's rank
1.	Lack of knowledge of feeding balanced ration	8905	74.21	I
2.	Inadequate knowledge about feeding of traditional feeds	3606	30.05	VII
3.	Non-availability of balanced commercial pig feed	7925	66.04	II
4.	Lack of knowledge of feeding mineral mixture	6203	51.69	IV
5.	Inadequate knowledge about the quantity of concentrates feed to be fed to various age group of animals	4850	40.42	V
6.	Lack of knowledge of feeding green forages etc.	4063	33.85	VI
7.	Higher cost of pig feed	6568	54.73	III

insemination service (54.82), non-availability of improved pedigree boar for natural service (52.21), inability to rear improved boar for breeding (43.18), higher cost of natural service by improved boar (31.10) and lack of knowledge in detecting heat.

The main constraint of pig rearing in the district was the non-availability of the improved breed, which might be due to non-existence of organized breeding farm at government or private level. Rajkumar and Kavithaa (2014) also reported that the non-availability of improved breeding buck was most important constraints faced by the farm women in goat farming in Erode district of Tamil Nadu. The second most important constraint was the lower productivity of the indigenous animals. The farmers mostly reared indigenous pigs due to non-availability of improved germplasms of pigs. Nagrle *et al.* (2015) also reported that low productivity of animals was the prime constraints faced by dairy farmers of Vidarbha region. Lack of knowledge in detecting heat (28.67) was least important constraints and ranked last among the breeding factors.

#### Feeding constraints :

Feeding constraints perceived by the pig farmers are summarized in Table 2. It was revealed that lack of knowledge of feeding balanced ration was the most important constraints with a mean score of 74.21 and was ranked first. However, Rajkumar and Kavithaa (2014) reported that lack of knowledge about balanced feeding was the third most important constraint perceived by the farm women in goat farming in Erode district of Tamil Nadu. The non-availability of balanced commercial pig feed with a mean score 66.04 (2<sup>nd</sup> rank), higher cost of pig feed with a mean score 54.73 (3<sup>rd</sup> rank), lack of knowledge of feeding mineral mixture (51.69), inadequate knowledge about the quantity of concentrate feed to be fed to various age group of animals (48.50), lack of knowledge of feeding green forages etc. (33.85) and

inadequate knowledge of feeding traditional feeds (30.05) were also some of major problems faced by the pig farmers of Sivasagar district. Patr *et al.* (2014) also found that high cost of concentrate feed was the most severe constraints faced by the pig farmers of Nagaland state. The result of the present also supported by Tochhawng and Rewani (2013), who also found that high cost of feed was one of the most serious socio-economic constraints of pig farmers in Aizawl district of Mizoram. The findings of the present study implied that the farmers had inadequate knowledge about various aspects of scientific feeding. The traditional feeds which normally fed to the pigs were of energy rich but deficient in protein and vitamins, which are very essential for normal growth particularly at the early part of life.

#### Health care constraints :

The constraints related to health care are presented in Table 3. It was found that higher mortality of pig due to unidentified contagious diseases was the most important constraints faced by the small scale pig farmers with a mean score of 67.33 and was ranked first. Inadequate veterinary services with a mean score of 57.78 was ranked second followed by lack of knowledge about the important diseases of pigs (51.69), higher mortality of piglets before weaning (50.97), non-availability of vaccines against most harmful diseases of pigs (45.65), lack of knowledge about the bio-security of piggery (45.39) and inadequate knowledge about deworming of pigs (31.80). The results indicated that the pig farmers needed to be train about scientific management of health care of pigs.

Ashalatha and Prbhakar (2010) also reported that lack of knowledge of identifying infection and contagious diseases, advantages of proper cleaning of pig shed, non-availability of timely veterinary facilities were some of the major constraint for adopting scientific technologies regarding pig rearing. The higher mortality in pigs might

**Table 3: Health care constraints of pig farming**

Sr. No.	Health care factors	Garrett's total score	Garrett's mean score	Rank
1.	Higher mortality of pig due to unidentified contagious diseases	8127	67.73	I
2.	Inadequate veterinary services	6933	57.78	II
3.	Higher mortality of piglets before weaning	6116	50.97	IV
4.	Lack of knowledge about the important diseases of pigs	6203	51.69	III
5.	Non-availability of vaccines against most harmful diseases of pigs	5478	45.65	V
6.	Lack of knowledge about the bio-security of piggery	5447	45.39	VI
7.	Inadequate knowledge about deworming of pigs	3816	31.80	VII

be due the occurrence of most important fatal diseases like swine fever etc. The higher mortality of piglets before weaning might be due piglet anaemia, diarrhea, cold shock because of lack of awareness among pig farmers about these problems.

### Marketing constraints :

The data summarized in Table 4 indicates the marketing constraints faced by the pig farmers of the present study.

It was revealed that lack of organized marketing facility with a mean score of 73.63 was the most important constraints perceived by the pig farmers and was ranked first among marketing factors. Islam and Nath (2015) also reported that lack of organized marketing facilities was the main constraints among the small scale broiler farmers in Sivasagar district of Assam. Seasonal demand of pork and its products was second most important constraint faced by the farmers with a mean score of 62.66 followed by exploitation of farmers by middlemen during marketing of pigs, piglets etc. (54.10), social taboos (49.49), unhygienic practices in slaughter of pig (39.10), consumption of pork causes diseases like measly pork etc. in human (36.64) and unauthorized supply of pork and its products from neighbouring states (35.38). Since the pig farming in this district was in the hands of unorganized resource poor farming community, the

middlemen played a major role in marketing of pigs and piglets etc. The unhygienic practices of slaughter might be due to the lack of awareness of the farmers.

### Miscellaneous constraints :

Various miscellaneous constraints perceived by the pig farmers of Sivasagar district are presented in Table 5. The result revealed that lack of operating capital and inadequate access to credit facility was most severe constraints faced by the pig farmers with a mean score of 69.90 and was ranked first among the miscellaneous factors. Kannan *et al.* (2008) also reported that lack of financial support was the major constraints in different climatic zones of Kerala. Higher cost of hired labour with a mean score of 66.93 and ranked second. The social unacceptance of pig farmers (57.29) was also one of the major constraints faced by the pig farmers. They were not easily accepted by the society as the way a poultry or dairy farmers were accepted. The present findings were in the agreement of the findings of Lavanya *et al.* (2014). The traditional system of rearing (57.17), disposal of piggery waste (39.27) and handling of live pigs for treatment, castration, weighing etc. (30.21) were also some of the major constraints faced by the pig farmers. The transportation of live pigs with a mean score of (30.24) was a major problem faced by the farmers. Tochhawng and Rewani (2013) also identified

**Table 4: Marketing constraints of pig farming**

Sr. No.	Marketing factors	Garrett's total Score	Garrett's mean score	Garrett's rank
1.	Social taboos	5939	49.49	IV
2.	Lack of organized marketing facility	8836	73.63	I
3.	Seasonal demand of pork and its products	7519	62.66	II
4.	Exploitation of farmers by middlemen during marketing of pig, piglets, etc.	6492	54.10	III
5.	Unhygienic practices in slaughter of pig	4692	39.10	V
6.	Consumption of pork causes diseases like measly pork etc. in human	4397	36.64	VI
7.	Unauthorized supply of pork and its products from neighbouring states	4245	35.38	VII

**Table 5: Miscellaneous constraints of pig farming**

Sr. No.	Miscellaneous factors	Garrett's total score	Garrett's mean score	Garrett's rank
1.	Higher cost of hired labour	8031	66.93	II
2.	Social unacceptance of pig farmers	6875	57.29	III
3.	Traditional system of rearing	6860	57.17	IV
4.	Transportation of live pigs	3629	30.24	VI
5.	Disposal of piggery wastes	4712	39.27	V
6.	Handling of live pigs for treatment, castration, weighing etc.	3625	30.21	VII
7.	Lack of operating capital and inadequate access to credit facility	8388	69.90	I

that transportation live pigs was one of most serious constraints in marketing of pigs in Aizawl district of Mizoram. Similar work related to the present topic was also done by Kumar *et al.* (2014).

From the above study it may be concluded that lack of knowledge about scientific breeding, feeding, health care management etc. is the main cause of constraints of pig farming. Apart from that higher cost of feeds, unorganized marketing facilities, non-availability of improved breeds of pig, non-availability of vaccines and medicines, improper veterinary facilities are also some of the severe constraints faced by the farmers. The extension wing of Animal Husbandry and Veterinary department or Krishi Vigyan Kendras should conduct extensive vocational trainings programmes on modern scientific pig farming for the pig farmers. As the pig farming is in the hands of unorganized, resource poor farming community, the middle-men are playing a major role in marketing. Hence, the government may think of encouraging these farmers to form co-operative societies

or organize self-help groups to tackle their marketing problems. The State Government should establish pig breeding farms for regular supply of improved germplasm to the farmers. It is also the paramount responsibility of government as well as bank to come forward to extend credit facilities to the enthusiastic entrepreneurs to take up pig rearing in a big way.

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#### COOPTED AUTHORS' –

**PHULESWAR NATH AND ARUNIMA BHARALI**, Krishi Vigyan Kendra (AAU) SIVASAGAR (ASSAM) INDIA  
Email-phuleswarnath@rediffmail.com; arunimabharali2012@gmail.com

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